

other, simultaneously, to the requisite height, by one simple operation; the power of which may be multiplied, when the machine has many frames, by aid of pinions, U and W; wheels, V and X; and ratchet and click, O. The smallest, and of course the uppermost or innermost, frame is made capable of holding one or two men, who can be raised by one or two others to the height of fifty or sixty feet, it is said, in two minutes. A folding gallery, with hand-rails, is added to the top frame for convenience; and as a fire-escape, ladders with hand-rails, one working within the other, are thrown out for escape; those in danger being thence lowered by tackle in frame boxes.

DECORATION OF THEATRES.

At the Decorative Art Society, on the 25th ultimo, Mr. Boulnois in the chair, a paper "On the decorations of theatres" was read by Mr. Dwyer, illustrated by several sketches from the interiors of the metropolitan theatres. The subject was introduced by observations upon the influence which dramatic art and its literature have had for good purposes, when judiciously conveyed, as being powerful auxiliaries in the education of a people, by successfully blending amusement with instruction; and Mr. Dwyer argued that the aid of decorative art, in its best developments, should always be applied in conjunction, for accelerating and promoting the grand social object of elevating the taste, and therewith the dignity, of the community. The just appreciation of the beautiful in scenic effect, now frequently displayed in our theatres, was adverted to as a proof that the production of superior decorations need only to be carefully attended to, to ensure successful and profitable results. The writer, after discussing the political use and necessity of wholesome recreations, said that he considered the best means of increasing the importance of theatres, and raising them to the public estimation, is to render them *magnificently* worthy, in every way, for the dissemination of moral truths and refinements. The prevailing coarseness, vulgarity, and slovenly disregard of cleanliness, was referred to as inducing negligent manners in an audience. He next noticed the construction of theatres; and, admitting that accommodation for the greatest number in the least possible space, with subdivisions for various classes of visitors, formed an important requirement, he argued that the form generally adopted (that of the horse-shoe) was not the most suitable and comprehensive for this end; and he referred to some positions in which seats are found, where, indeed, a view of the stage is unobtainable. He maintained that the idea of making the audience feel as comfortably seated in a theatre as if in a drawing-room, had been very imperfectly if at all contemplated; and that, however much a curved side might with propriety be admired, *utility* should have the primary attention, so as not to restrict the view in any case to merely a portion of the opposite boxes. The circular and semi-circular forms employed by the ancients, the writer said, suggested a useful modification, which is somewhat approached in the plan of Drury Lane, and there contrasts favourably with the straight-sided, horse-shoe form in Covent-garden, where a long range of sittings of an inconvenient construction, and embodying impediments to both seeing and hearing, are to be met with.

An ignorance of acoustics was said to be singularly evident in the construction of our theatres. Mr. Dwyer referred to several well known forms, such as tunnels, archways, and long curved spaces; also to the stone canopied seats on Westminster-bridge; where the slightest whisper could be distinctly heard in that opposite to it; as so exceedingly suggestive, that he could not but feel the greatest surprise at such repeated blunders; more particularly as the results to actors and vocalists, with voices admirably adapted to more favourable circumstances, have proved so frequently disastrous to their reputations.

The proscenium to each of the London theatres was said to be remarkably different in arrangement; no two being alike, and none exhibiting an approach to any principle which the laws affecting sound would dictate. Some expressions followed, conveying censure of the prevailing use of massive Greek entablatures, with Corinthian columns in unusual propor-

tions (at Astley's very lofty, at the Haymarket very short), evincing a disregard of harmony in form and proportion, from the entire absence of a medium for combining the gigantic massiveness in the one with the sub-division of parts throughout the interior of the house. The theatre at Versailles was referred to as an instance where Corinthian columns being placed on the stage, Ionic columns support the superstructure, and which, with some other arrangements, render this theatre particularly worthy of observation. Nevertheless, the proscenium there is imperfectly constructed for the distribution of sound. The writer considered the upper portion of the proscenium of Covent Garden the least objectionable of any in the metropolitan theatres, and awarded praise to the picturesque and agreeable manner in which it blends with the interior, and also as being in that part better calculated for the distribution of sound. A form of construction was then explained, which it was said would obviate the necessity for extraordinary exertions on the part of the performers, in attempting to produce an audible and satisfactory effect throughout the house. Mr. Dwyer propounded a theory which he said comprehended the principles embodied in two familiar instruments of sound, viz. the bell and the violin. He would construct two bold, bell-shaped curves, diverging over not less than eight feet on the stage to the sides of the theatre. Each of these he would have composed of two thicknesses of wood, placed about six inches apart. The front one should be perforated, ornamentally, thus serving to receive and distribute equally within itself the sound given forth near to it. The elevation should assume the form of an arch, with spandrella, also perforated, thereby distributing, with distinct resonance, the words or music to all parts of the house. (A sketch in explanation was shewn.) In a subsequent part of the paper, the writer offered some remarks upon the construction of ceilings, which we take the liberty of now stating, such being apparently in immediate connection with the acoustic theory in construction last described. He proposed the use of a spherical or spheroidal roof, supported by iron ribs, which might be ornamented; the spaces between each rib to be enriched with elaborate perforations (or otherwise, according to the general style of the house) in a manner similar to the doorway in the circle at Astley's. The additional height thus given in the interior would enable the chandelier to be placed above the line of sight from the upper part of the theatre to the stage; and the objection that might be made to this position of the chandelier were met by the fact that a concave surface reflects much more than a flat one. Another important advantage arising from this form of ceiling was, the facility afforded for a powerful system of ventilation. The painting room would be raised some nine feet, and the absence of the rolls of canvas scenery and other properties from the top of the ceiling would add considerably to the reverberation of sounds, besides contributing greatly to the comfort and health of the artists belonging to the theatre.

Adverting to the general principles of construction exhibited in the theatres of the metropolis, he considered that the Surrey Theatre embraced, more than any other, the best arrangements for seeing and hearing; the proscenium being formed on bold bevel, judiciously diminishing the width of the stage. The disregard of unity in the construction of theatres generally was pointed out; and, among other instances, the St. James's was named; where light flowing ornaments in the French style are in juxtaposition with a massive classic style; and the ceiling to the Princesses was deemed an instance of discordant arrangement. Mr. Dwyer added that these, with many other defects, probably arose from everything theatrical being invariably done in a hurry. The application of various decorative materials, such as distemper paintings, paper hangings, composition, paper mache, the fittings up of the boxes, &c., received attention; and it was asserted that the Princess's was conspicuous for elaborate richness and diversity of ornament; but that it was questionable whether the Herculean expression therein, rather than the delicacy and grace of Apollo, may be deemed most appropriate. The usual enrichments on the fronts of boxes was commented on, and the use of bas-relief or raised ornament was re-

commended in preference to the most elaborate surface painting in panels. The velvet valances to the boxes in the Princess's Theatre were commended, but the practice of having them, as in several theatres, to extend only above the private boxes was deprecated. When it is not wished to have ornament in relief upon the fronts of the boxes, valances of this kind suspended from the cushion were suggested as imparting a peculiar and good effect.—The paper extended to a considerable length; and, among the more important of the topics were ornamental iron-work, which it was said might be introduced with great diversity of design, for balconies, open fronts to the boxes, fret-work and ornaments in relief for various parts of a theatre; some remarks on the usual method of supporting the boxes by series of columns; and others condemnatory of the manner in which the tiers of stage-boxes are generally placed between large Corinthian columns. Sculpture was mentioned as offering an important adjunct in producing a higher class of decorations; and encaustic painting, as facilitating cleanliness and durability. Discussion adjourned to the 9th inst.

NOTES IN THE PROVINCES.

Her Majesty, the Queen Dowager, has contributed 20*l.* towards rebuilding the parish and deservy church of Ewell, Surrey.—The Earl of Onslow has given 200*l.* towards rebuilding Ripley church, Surrey.—From the vicinity of Poole, Dorsetshire, 37,500 tons of China clay are said to be annually shipped to the potteries: value nearly 50,000*l.*—The town council of Worcester has resolved on the establishment of public baths and washhouses.—It is reported by the *Sheffield Times* that an architect was lately requested to adapt the new church at Attercliffe as a model for the new church to be erected in the Wicker district at Sheffield; but that he "courteously but resolutely refused to damage his reputation by carrying out the design."—A Roman Catholic chapel "on a costly and magnificent scale not hitherto attempted in any part of England, with one or two exceptions" is to be erected at Sheffield. Designed by Messrs. Weightman and Hadfield have been laid before the Duke of Norfolk; and the ground, an extension of the site of the present chapel in Norfolk-row, has been purchased; though it will probably be three years, it is said, before the building is begun; exertions being only in progress towards the attainment of the means requisite for its realisation.—The Guildhall, at Bury St. Edmunds, is undergoing repairs at present; improvements being made in the gateway, porch, and entrance hall.—It appears that the building for the Ipswich Museum is to be erected at the expense of the ground-landlords, and let for the museum at 5 per cent. on the cost, with option of future purchase at the original cost itself.—The repairs of St. Nicholas' church, Yarmouth, are in progress, so far at least that contracts for benches and pews have been entered into, to be completed by 1st January next. These are to be temporarily used in the chancel, which accommodates 1,600 persons. The *Yarmouth Chronicle* recommends the church trustees to devote the sum of 1,250*l.* towards the repair of the fabric, so that the restoration of exterior and interior may proceed simultaneously towards completion.—Levels and plans for the uniform and effectual drainage of the Dene, Yarmouth, are in course of preparation by the surveyor to the council.—The town of Fakenham has just been lighted with gas. The coffer-dam for the new dock at Grimeby is in progress. A new pile-driving engine is being erected. The interstices of the dam are filled in with chalk and clay, and the timbers and abutting piles are bound with iron. Considerable advancement has been made with the work.—The nave and aisles of St. Andrew's parish church, Coston, a village seven miles from Melton Mowbray, have been lately divested of whitewash, repaired, and filled with open seats, and the chancel has been re-built by the incumbent, the Hon. and Rev. John Sandilands.—Canwick Church has also been brushed up and re-opened.—Operations have been begun for the restoration of the ancient chapel of St. Sampson, at York. The principal contractors are Mr. Laycock, mason, and Mr. Gray, joiner, whose contracts, however,